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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,558

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EXAMINER

PAUL, DISLER

ART UNIT

PAPER NUMBER

2615

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/692,558	<b>Applicant(s)</b> GRUHLE ET AL.	
	<b>Examiner</b> Disler Paul	<b>Art Unit</b> 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/4/04</u> . | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Response to Amendment***

The applicant has cancelled all claims and the new claim 33-49 will be considered over prior arts.

Applicant's argument of the double patent rejection has been considered and is non-persuasive, even though the two claims differed in term of the device used in testing, such limitation of the device is intended used and there is no limitation of the difference on the

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structured of the device and further more the loudspeaker may also be considered as an electric motor for generating electric for testing. Thus, in view of the above, the double patent rejection is maintained.

In further, also while the device used in prior art pertain to a speaker of an hearing device and not for a vehicle, both of the applications disclosed of the same concept and same field of endeavor, wherein picking up the electromagnetic field by an antenna from a speaker for doing analysis (see col.4 line 55 & col.5 line 5), thus both applications used the same method in field of endeavor to solve the particular problem of monitoring magnetic and testing of hearing aid.

Furthermore in regard to the prior art of Aab wherein the applicant argue of the nonanalogous art and non obviousness, both the application dealt with using filter in which to suppress component of electromagnetic interference signals and thus needed or accurate signals may be analyzed and thus in short solved the same objectives/purpose in thus with the above reason, one of ordinary skill in the art would have found the reason in to modify Taenzer.

In actuality, Taenzer et al. did disclose of the limitation of the device wherein the filter is used for analysis, the examiner had failed to take note of that included limitation in Taenzer et al. and thus will also make reference of such limitation in view of the applicant's further limitaion based on the filter analysis claim, (note: the examiner also will maintain his rejection on aab).

### ***Double Patenting***

2. Claims 33-37 and 44-49 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. ("US 2004/0124844 A1"). Although the conflicting claims are not identical, they are not patentably distinct from each other because even though the copending application No. ("us 2004/0124844 A1") is directed to electric motor with rotation which is not disclosed in application ("US 2004/0131194"), electric motor is just another device which produced electromagnetic fields thus official Notice is taken that it would have been obvious to one of the ordinary skill in the art to have the device to test the electromagnetic motor producing field for purpose of testing its functionality.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 33-34,36,42,44-46,49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taenzer et al. (US 6,603,860 B1) and further in view of whitecar et al. (US 5,815,584).

Re claim 33, Taenzer et al. discloses a Device for testing functionality of loudspeakers ("fig.2-4; col.2 line 33-36; line 4-5; col.1 line 10-17-testing the functionality of audio hearing aid device"), comprising: an antenna for receiving alternating electromagnetic fields of the loudspeakers as signals ("fig.3/214;col.2 line 47-52;col.col.4 line 1-3-receiver/antenna to receive field"), a unit for analysis of the received signals with respect to signal components in the transmission range of loudspeakers ("fig.2A-2B/60;col.4 line 25") and an output unit for signaling the functionality ("fig.2A/70,57; col.4 line 28-30"),

However, Taenzer et al. fail to disclose of the device for testing the loudspeakers installed in a vehicle. However, Whitecar et al. disclose of the similar concept of using a device for testing the loudspeakers installed in a vehicle (fig.1; col.1 line 35-65) for the purpose of determining if all speakers are connected and operating properly, thus it would have been obvious for one of the ordinary skill in the art at the time of the invention to have incorporated the device for testing the loudspeakers installed in a vehicle for the

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purpose of determining if all speakers are connected and operating properly

Re claim 34, the device according to Claim 33, wherein the antenna includes one or more receiver coils (col.3 line 60-64).

Re claim 36, the device according to Claim 33, wherein between the antenna and the unit for analysis an amplifier is provided for amplifying the received signal (fig.3/202; col.5 line 47).

Re claim 42, the device according to Claim 33, further including an input for receiving the audio signals supplied to the loudspeaker; and wherein the unit for analysis is adapted for correlating the received signals with the supplied audio signals (fig.2A-B/(18,20); col.4 line 25-30; col.5 line 1-6; line 35-40/testing is done on the received signals; col.4 line 44-50).

Re claim 43, the device according to Claim 33, wherein the output unit is capable of providing an optical and/or acoustic signal (fig.2/100; col.4 line 60-65).

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Re claim 44, the device according to Claim 33, including a portable housing (fig.1A/18,2c,2D).

Re claim 45, the device according to Claim 33, including an independent energy supply (col.5 line 43-45).

Re claim 46, the device according to Claim 45, wherein said independent energy supply is a battery or a fuel cell system (col.5 line 43-45; fig.2c/100).

Re claim 49, Taenzer et al. discloses a Process for testing functionality of loudspeakers ("fig.2-4; col.2 line 33-36; line 4-5; col.1 line 10-17-testing the functionality of audio hearing aid device"), operating said loudspeaker to produce an alternating electro-magnetic field ("fig.3/214;col.2 line 47-52;col.col.4 line 1-3; col.3 line 35-50/transducer to produce field"), using an antenna to detect said alternating electro-magnetic fields as a received signal (fig.1A (18)); evaluating the received signal for signal components in the transmission range of loudspeakers using a unit for analysis("fig.2A-2B/60;col.4 line 25"), and in the case that functionality this is displayed using a display unit("fig.2A/70,57; col.4 line 28-30").

However, Taenzer et al. fail to disclose of the device for testing the loudspeakers installed in a vehicle. However, Whitecar et



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al. disclose of the similar concept of using a device for testing the loudspeakers installed in a vehicle (fig.1; col.1 line 35-65) for the purpose of determining if all speakers are connected and operating properly, thus it would have been obvious for one of the ordinary skill in the art at the time of the invention to have incorporated the device for testing the loudspeakers installed in a vehicle for the purpose of determining if all speakers are connected and operating properly

3. Claims 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taenzer et al. (US 6,603,860 B1) and further in view of whitecar et al. (US 5,815,584) and further in view of Aab ("US 5,500,585").

Re claim 37, Taenzer et al. discloses a Device according to claim 33, However, Taenzer et al. fail to disclose that the unit for analysis includes a filter unit for filtering the received signals. But, Aab discloses a device for detecting movement of movable component in which the unit for analysis includes a filter unit for filtering the received signals ("col.8 line 17-

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19;fig.1/29") for the purpose of suppressing electromagnetic interference signals, therefore taking the combined teaching of Taenzer et al and Aab as a whole, it would have been obvious to one skill of ordinary art to modify Taenzer et al. by incorporating the unit for analysis includes a filter unit for filtering the received signals for the purpose of suppressing electromagnetic interference signals.

Re claim 37, the device of claim 33, wherein the unit for analysis includes a filter unit for filtering the received signals (fig.3-4/206, col.5 line 50-58).

4. Claims 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taenzer et al. (US 6,603,860 B1) and further in view of Whitecar et al. (US 5,815,584) and further in view of Aab ("US 5,500,585") and further in view of Fox et al. (US 3,855,415).

Re claim 38, the device according to Claim 37, wherein the filter

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unit includes a filter with a throughput range corresponding to the transmission range of the loudspeaker (col.5 line 50-65/filter used to monitor electromagnetic audio generated by transducer), However, the combined teaching of Taenzer et al. and whitecar and Aab as a whole, fail to disclose of the filter used being specifically of a band pass filter, However, Fox et al. disclose of using a filter with loudspeaker wherein the filter used being specifically of a band pass filter for the purpose of providing a monitor frequency at the filter output when such frequency is present in the channel (fig.1; col. 5 line 60-67). Thus, taking the combined teaching of Taenzer et al. and whitecar and Aab and now Fox et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modify the combined teaching of Taenzer et al. and whitecar and Aab as a whole, by incorporating the having a filter with loudspeaker wherein the filter used being specifically of a band pass filter providing a monitor frequency at the filter output when such frequency is present in the channel.

5. Claims 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taenzer et al. (US 6,603,860 B1) and further in view of whitecar et al. (US 5,815,584) and further in view of Frey et al. (US 5,631,968).

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Re claim 41, the device according to Claim 33, However, the combined teaching of Taenzer et al. and whitecar et al. as a whole, fail to disclose of the limitation wherein the unit for analysis is adapted for logarithmic evaluation of the received signals. But, Frey et al. disclose the similar concept of having the unit for analysis is adapted for logarithmic evaluation of the received signals (fig.1,3; col.8 line 25-40; line 45-50/analysis is being done on logarithmic signals) for the purpose of automatically increasing the compression ratio output in avoiding clipping. Thus, taking the combined teaching of Taenzer et al. and whitecar et al. and now Frey as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have incorporated the concept of having the unit for analysis is adapted for logarithmic evaluation of the received signals for the purpose of automatically increasing the compression ratio output in avoiding clipping.

5. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taenzer et al. (US 6,603,860 B1) and further in view of whitecar et al. (US 5,815,584) and further in view of England et al. ("US 6,769,612")

Re claim 35, the device according to Claim 34, However, the combined teaching of Taenzer et al. and Whitecar as a whole, fail to

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disclose of the limitation wherein the receiver coils are oriented in different spatial directions. However, England et al. disclose of the magnetic dipole system wherein the concept of having receiver coils are oriented in different spatial directions (fig.3-4; col.3 line 50-65/receiver coils orientation in different direction to pick up field) for the purpose of reading different magnetic element in determining transition data particular with the changes in the magnetization state of the magnetic element, thus taking the combined teaching of Taenzer et al. and Whitecar and England as a whole, it would have been obvious for one of the ordinary skill in the art to have modify Taenzer et al. and Whitecar as a whole, by incorporating the receiver coils are oriented in different spatial directions for the purpose of reading different magnetic element in determining transition data particular with the changes in the magnetization state of the magnetic element.

5. Claims 39-40; 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taenzer et al. (US 6,603,860 B1) and whitecar et al. (US 5,815,584) and further in view of official Notice.

Re claim 39, the device according to Claim 37 with the switchable filter for monitoring with corresponding to the speaker (fig.3-4; col.5 line 50-60/monitor frequency for the generated electromagnetic transducer), However, the combined teaching of Taenzer et al. and whitecar and Aab as a whole, fail to disclose of the limitation wherein the filter unit includes multiple switchable band pass filters with throughput ranges corresponding to the transmission ranges of different loudspeakers. However, official notice is taken the concept of having the switchable band pass filter is commonly known in the art, thus it would have been obvious for one of the ordinary skill in the art to have modify the combined teaching of Taenzer et al. and whitecar and Aab as a whole, by incorporating the multiple switchable filter for providing monitoring corresponding to the speaker element.

Re claim 40, the device according to Claim 37, However, the combined teaching of Taenzer et al. and whitecar and Aab as a whole, fail to disclose of the limitation wherein the filter unit includes a filter with a throughput range of approximately 100 Hz to 10 kHz. However, official notice is taken the limitation of having a filter wherein the range is chosen to be of approximately 100 Hz to 10 kHz is the inventor's preference, thus it would have been obvious for one of the ordinary skill in the art to have incorporated the limitation wherein the filter with a throughput range of approximately 100 Hz to 10 kHz for monitoring such signals at the selected frequencies.

Re claim 47, Taenzer et al. discloses a Device according to claim 33, and wherein the unit for analysis of the received signal is a device for digital signal processing ("fig.2A/60; col.7 line 15-20"). But, Taenzer et al. fail to disclose of the analog-digital converter provided subsequent to the antenna. However official notice is taken that the limitation of having the analog-digital converter provided subsequent to the antenna is commonly known in the art, thus it would have been obvious for one of the ordinary skill in the art to modify Taezer et al. by incorporating the analog-digital converter provided subsequent to the antenna for generating digital signals to be analyzed by the digital signal processor.

Re claim 48, the device according to claim 30, wherein the device for digital processing is a micro-controller, signal processor or a ASIC ("fig.2A/60; col.7 line 15-20").

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-272-2222. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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